

2020-12-05: David Moruzzi

Custom portfolio deployment with the Jekyll framework

Overview:

This documentation will enable you to deploy a custom portfolio website. These same techniques may be used for a variety of additional website types as well. This tutorial will use include how to: purchase a domain name, configure domain name, select a Jekyll framework theme for website design, and final deployment for the world wide web using [Github Pages](#) for free hosting.

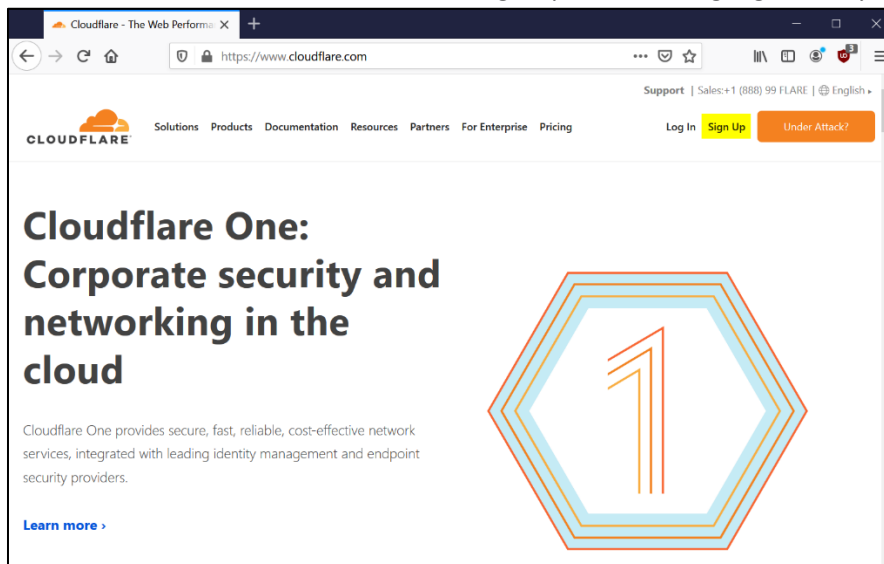
Limitations:

1. This documentation does not include any information regarding Jekyll template creation.
2. The domain registrar in this documentation will be [CloudFlare](#). CloudFlare, as of writing this documentation, operates an at-cost operation for domain registration and thus offers the lowest rates overall for both initial registration and renewal. However, some other services may be able to offer discounts for initial domain purchasing and you may be able to transfer to CloudFlare for the at-cost renewal rates.
3. Github Pages may no longer provide free hosting in the future. As of creation this documentation, there are no plans for retirement nor are there any public comments from Github suggesting it may do so. Please ensure Github Pages is available by checking [pages.github.com](#) before following this tutorial. If Github Pages is no longer available, please contact node38.tutorial@dmoruzzi.com and an additional deployment

Purchasing a domain:

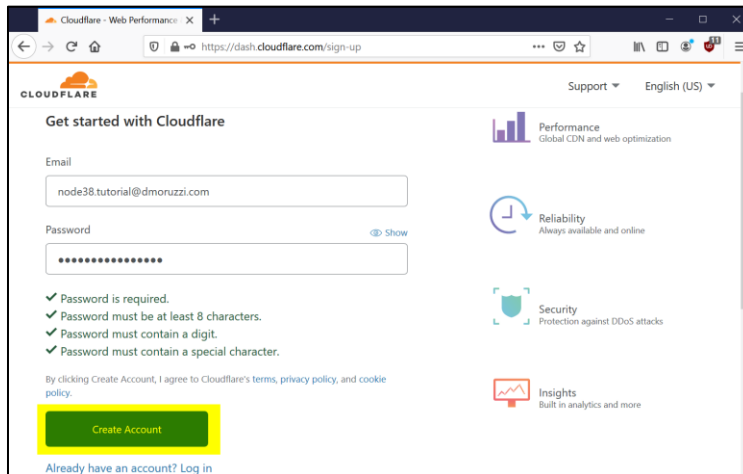
For this tutorial, we will be using CloudFlare to purchase and configuration our customized.

1. Please visit CloudFlare.com and select “Sign Up” which is highlighted in yellow.



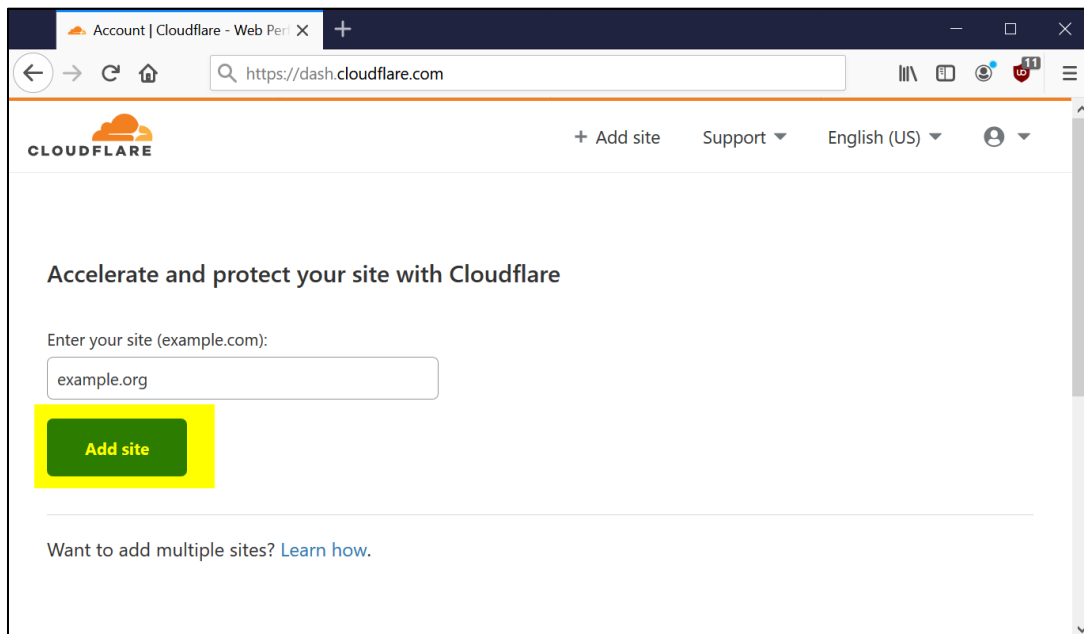
- a. If you already have a CloudFlare account, please select sign into your account and skip to Step 8.

2. Please enter your email address and password for CloudFlare.



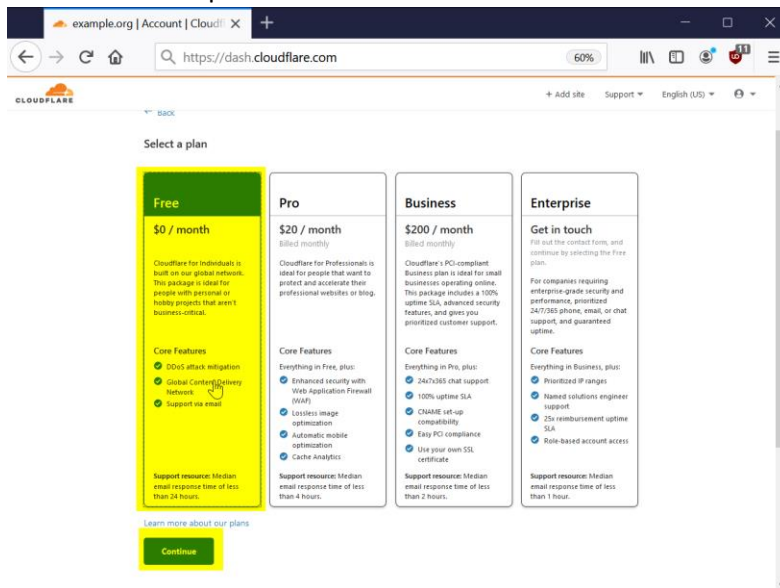
The screenshot shows the Cloudflare sign-up page at <https://dash.cloudflare.com/sign-up>. The page has a header with the Cloudflare logo, a 'Support' dropdown, and a language selector set to 'English (US)'. The main heading is 'Get started with Cloudflare'. Below this, there are two input fields: 'Email' (containing 'node38.tutorial@dmoruzzi.com') and 'Password' (masked with dots). To the right of the password field is a 'Show' link. Below the password field, there are four bullet points: 'Password is required.', 'Password must be at least 8 characters.', 'Password must contain a digit.', and 'Password must contain a special character.' Below these is a checkbox for terms and conditions, which is checked. At the bottom left is a green 'Create Account' button. To the right of the form, there are four feature cards: 'Performance' (Global CDN and web optimization), 'Reliability' (Always available and online), 'Security' (Protection against DDoS attacks), and 'Insights' (Built in analytics and more). At the bottom, there is a link 'Already have an account? Log in'.

3. When your account is created, you will be automatically redirected to add your domain. However, you do not currently own a domain yet. As a result, we will temporarily enter the domain "example.org" to finish the sign-up process. This will be removed later. Once example.org is entered, please select "Add site". Please check your email and verify your newly created CloudFlare account.

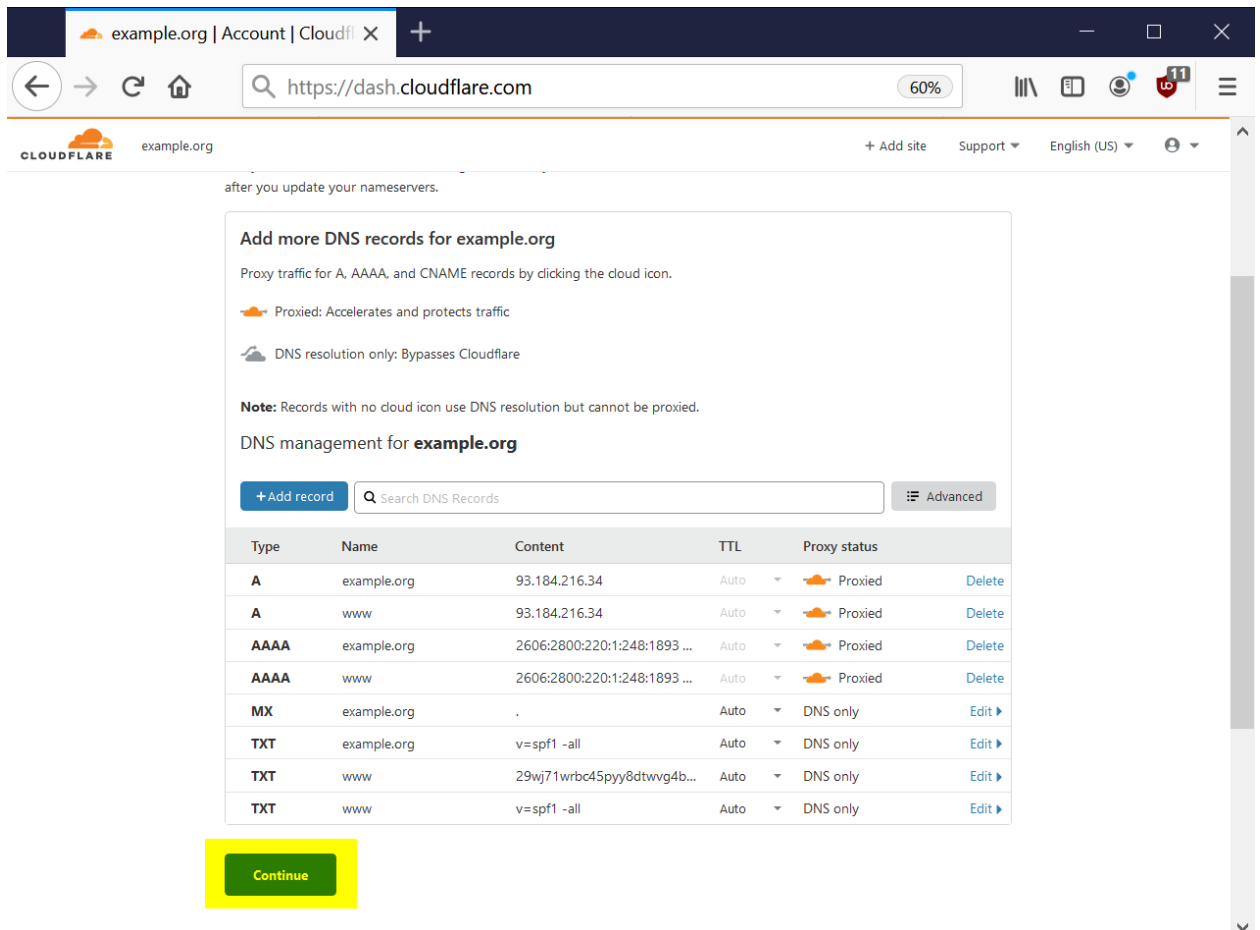


The screenshot shows the Cloudflare 'Add site' page at <https://dash.cloudflare.com>. The header includes the Cloudflare logo, a '+ Add site' button, a 'Support' dropdown, a language selector set to 'English (US)', and a user profile icon. The main heading is 'Accelerate and protect your site with Cloudflare'. Below this, there is a label 'Enter your site (example.com):' and an input field containing 'example.org'. Below the input field is a green 'Add site' button. At the bottom, there is a link 'Want to add multiple sites? Learn how.'.

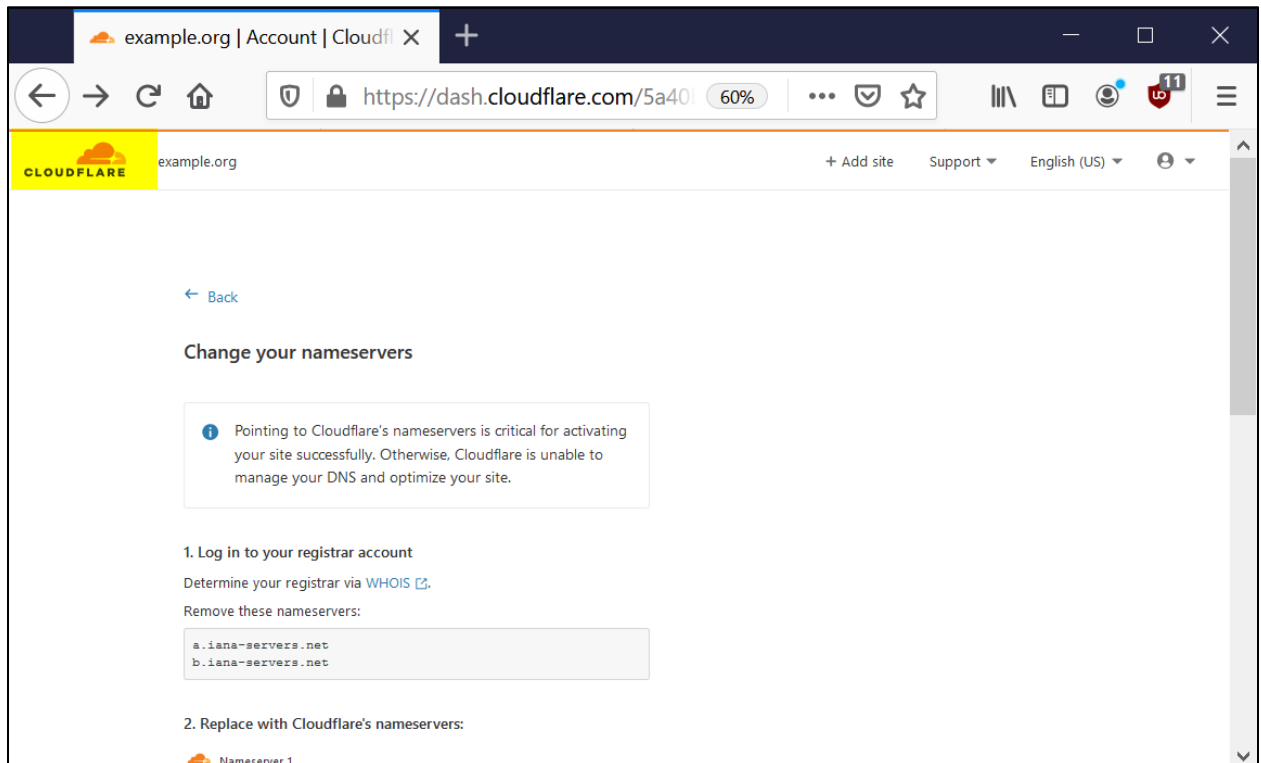
4. Please enter the plan “Free” and then enter “Continue”



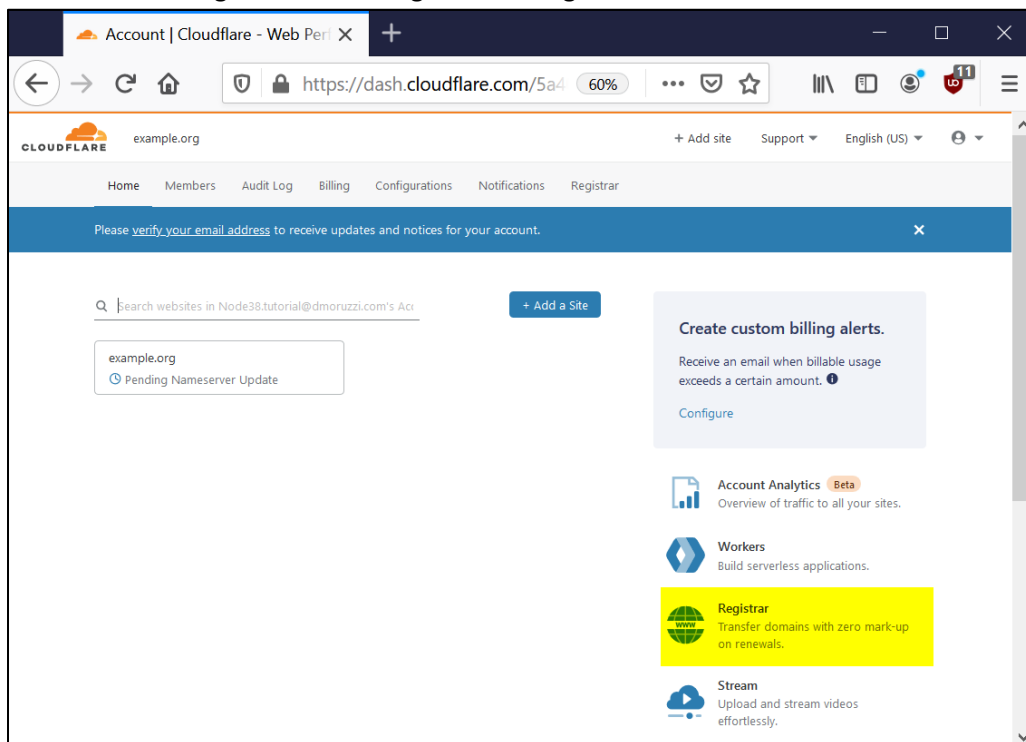
5. CloudFlare will find a number of domain records and addresses. You may ignore these as they will be deleted in a moment. Please select “Continue”



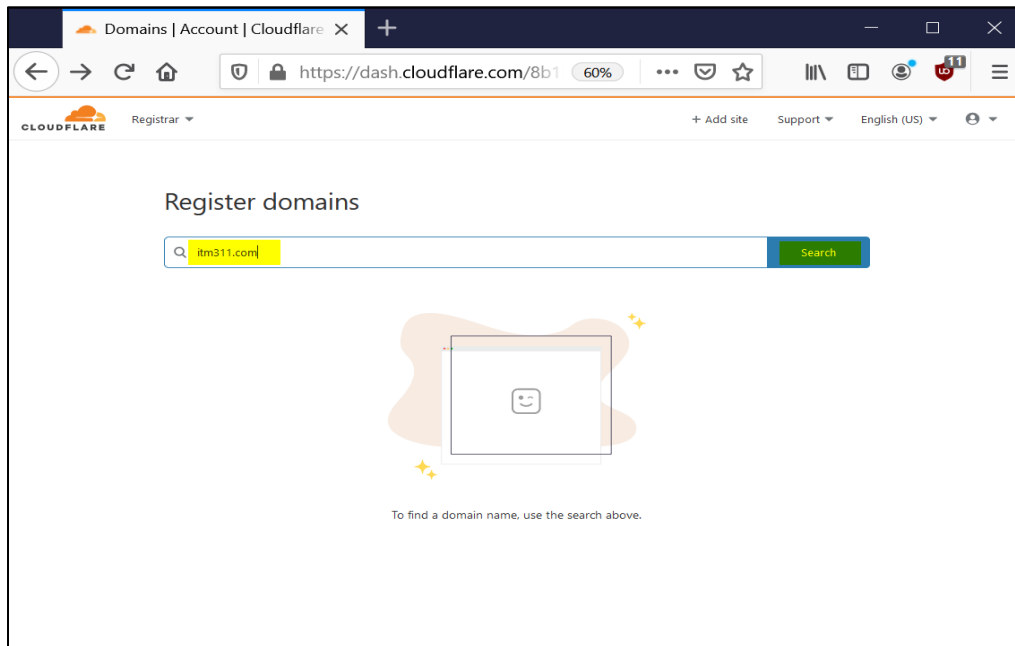
6. CloudFlare will request for you to change your name server records for this domain. You may safely ignore this. Please select click on the Cloudflare logo on the top left corner.



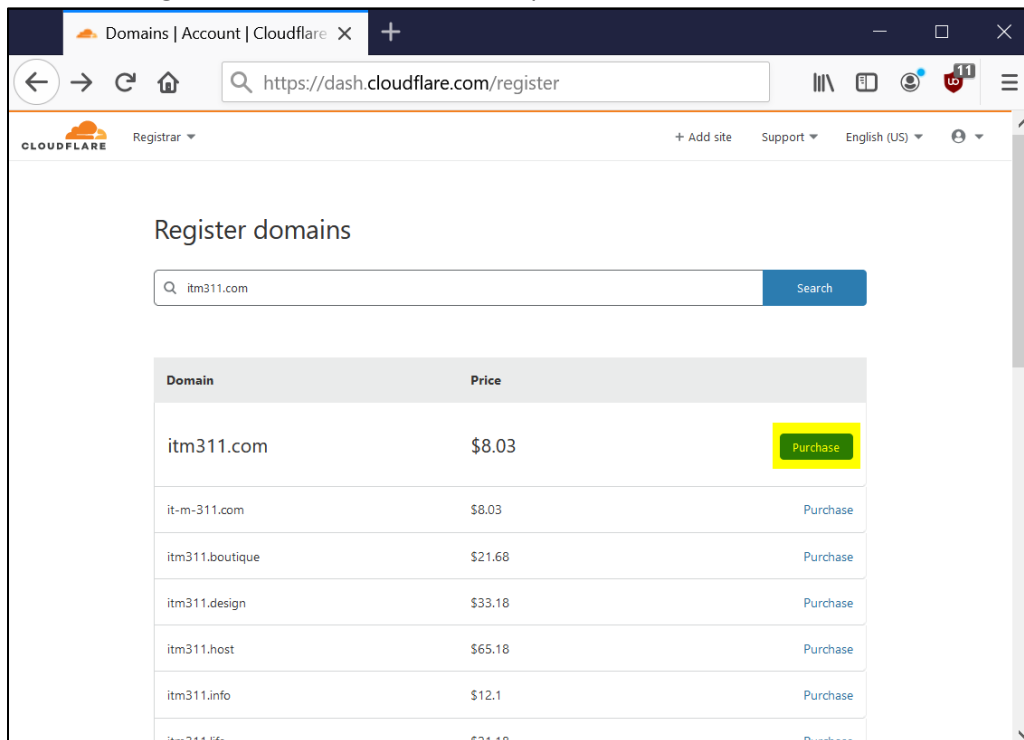
7. Please select "Registrar" on the right-side navigation bar.



8. You will then be requested for the new domain you wish to register. This domain cannot already be registered (i.e. example.com).



9. A list of all registerable domains will return, please select “Purchase” with the domain you wish.



10. Please select the number of years you wish to register this domain and then click “Continue”.

The screenshot shows the Cloudflare domain registration interface for the domain **itm311.com**. The page is titled "Register itm311.com" and includes a breadcrumb trail: **Registration > Contact Details > Payment Details > Review**. The main section is labeled "Registration" and features a dropdown menu set to "1 year", which is highlighted with a yellow box. Below this, a note states: "Your domain will automatically renew for 1 year. This setting may be updated at anytime from within your dashboard." To the right, a "Summary" panel displays the registration details: "Registration itm311.com", "Years Registered 1", "Price Per Year \$8.03", and "Total Due Now \$8.03*". Below the summary, a note indicates "Charge card ending in (2453)". At the bottom right, there is a green "Continue" button with a lock icon and a blue "Cancel" link. A disclaimer at the bottom states: "By clicking Submit, you agree to Cloudflare's Self-Serve Subscription Agreement, Domain Registration Agreement and Privacy Policy. If you have enabled Auto-Renew, you are consenting to the automatic renewal of your domain name(s). Automatic renewals may be cancelled at any time via the Domain Management page in your account. Automatic renewals will be billed to the payment method on file, until cancelled."

11. Please enter your contact information and then select “Continue”

The screenshot shows the Cloudflare domain registration interface for the domain **itm311.com**, specifically the "Registrant Contact" step. The page is titled "Register itm311.com" and includes a breadcrumb trail: **Registration > Contact Details > Payment Details > Review**. A link "Back to registration" is visible at the top left. The "Registrant Contact" section contains several input fields: "First Name", "Last Name", "Organization" (with a note "For individuals, just use your full name"), "Address Line 1", "Address Line 2 (Optional)", "City", "State or Province", "Postal Code", "Country" (set to "Canada"), "Phone" (with a note "Must be ITU E formatted, e.g. +1.888.123.1234"), and "Email". To the right, a "Summary" panel displays the registration details: "Registration itm311.com", "Years Registered 1", "Price Per Year \$8.03", and "Total Due Now \$8.03*". Below the summary, a note indicates "Charge card ending in (2453)". At the bottom right, there is a green "Continue" button with a lock icon and a blue "Cancel" link. A disclaimer at the bottom states: "By clicking Submit, you agree to Cloudflare's Self-Serve Subscription Agreement, Domain Registration Agreement and Privacy Policy. If you have enabled Auto-Renew, you are consenting to the automatic renewal of your domain name(s). Automatic renewals may be cancelled at any time via the Domain Management page in your account. Automatic renewals will be billed to the payment method on file, until cancelled."

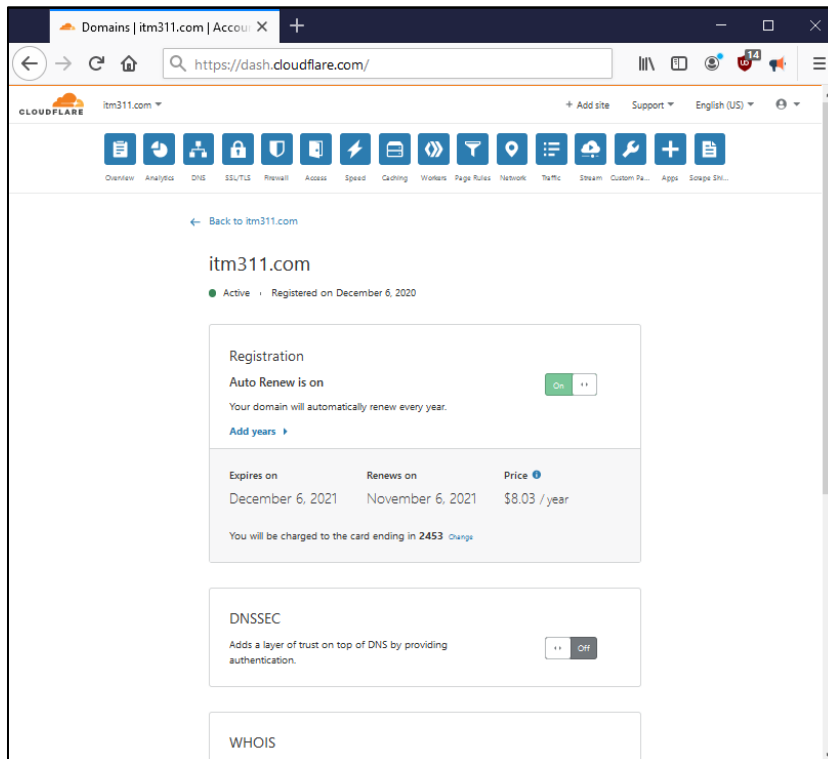
12. Add credit payment information and select “Add” when completed.

The screenshot shows the 'Manage payment methods' page in the Cloudflare dashboard. The page has a header with the Cloudflare logo, a menu, and navigation links for '+ Add site', 'Support', and 'English (US)'. A 'Back' link is at the top left. The main heading is 'Manage payment methods'. Below it is a form titled 'Add Primary'. The form includes a security notice: 'All transactions are secure and encrypted.' with a link to 'PayPal'. The 'Credit card details' section has fields for 'Credit card number' (with a card icon), 'Expiration date' (MM / YY), and 'Security code' (CVV). Below this is the 'Payment address' section with fields for 'First name', 'Last name', 'Country' (a dropdown menu), and 'Zip/postal code'. At the bottom of the form are 'Cancel' and 'Add' buttons. Below the form, there is a 'Backup' section with 'None' and an 'Add' link.

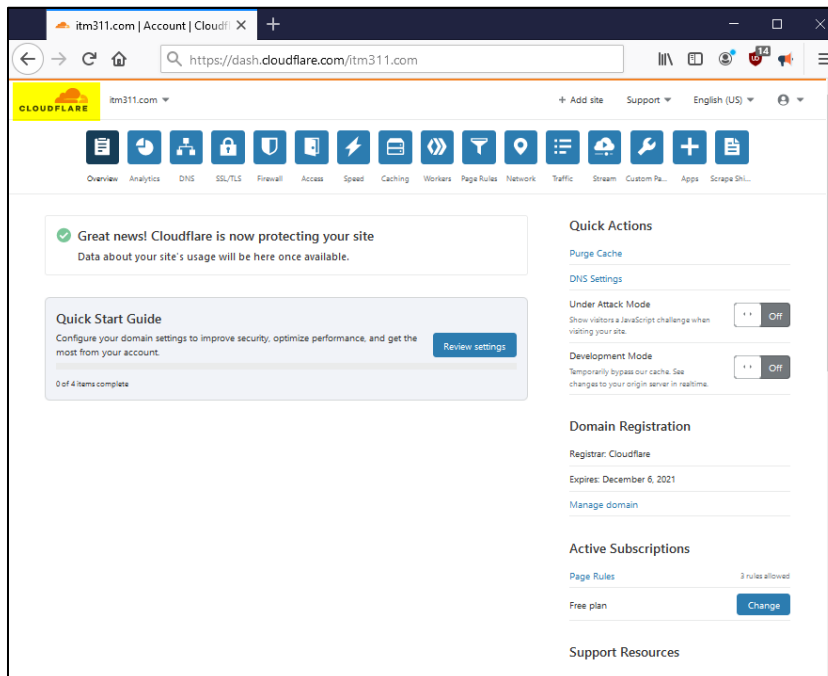
13. Verify contact information and select “Submit” to purchase domain.

The screenshot shows the 'Register itm311.com' page in the Cloudflare dashboard. The page has a header with the Cloudflare logo, a menu, and navigation links for '+ Add site', 'Support', and 'English (US)'. A 'Back to payment details' link is at the top left. The main heading is 'Register itm311.com'. Below it is a breadcrumb trail: 'Registration > Contact Details > Payment Details > Review'. The page is divided into two main sections. The left section contains three sub-sections: 'Registration' with a green checkmark and the text 'Auto Renew is on. Your domain will automatically renew every year.', a table with 'Expires On' (Dec 6, 2021), 'Renews On' (Nov 6, 2021), and 'Price' (\$8.03* /year), and a note '*Domain fees are subject to change.'; 'Registrant Contact' with a redacted input field; and 'Payment' with a security notice 'All transactions are secure and encrypted. You will be charged on Nov 6, 2021' and a 'Billing address' redacted input field. The right section is titled 'Summary' and contains a table with 'Registration' (itm311.com), 'Years Registered' (1), 'Price Per Year' (\$8.03), and 'Total Due Now' (\$8.03*). Below the table is a section titled 'Charge card ending in (2453)' with a note: '*Your invoice will include any final sales tax, including state and local taxes when applicable.' At the bottom of the page are 'Submit' and 'Cancel' buttons.

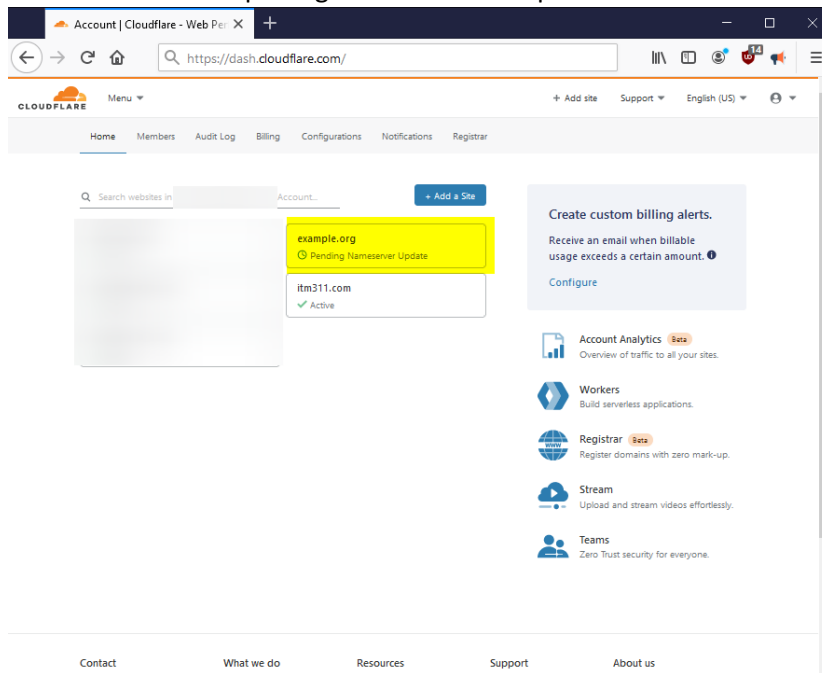
14. You will immediately be redirected to CloudFlare's dashboard from within your newly purchased domain.



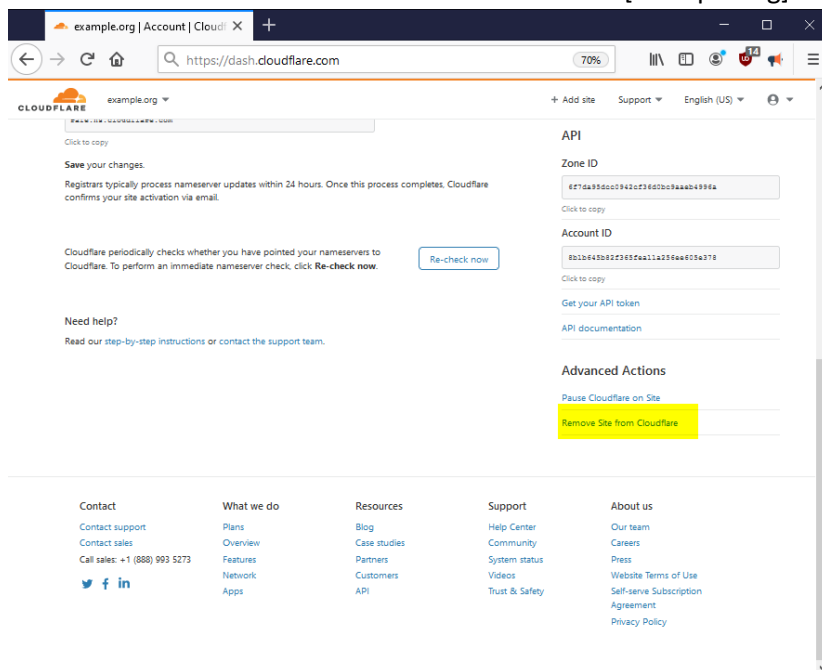
15. Please navigate back to the primary dashboard by clicking on the CloudFlare logo on the top left.



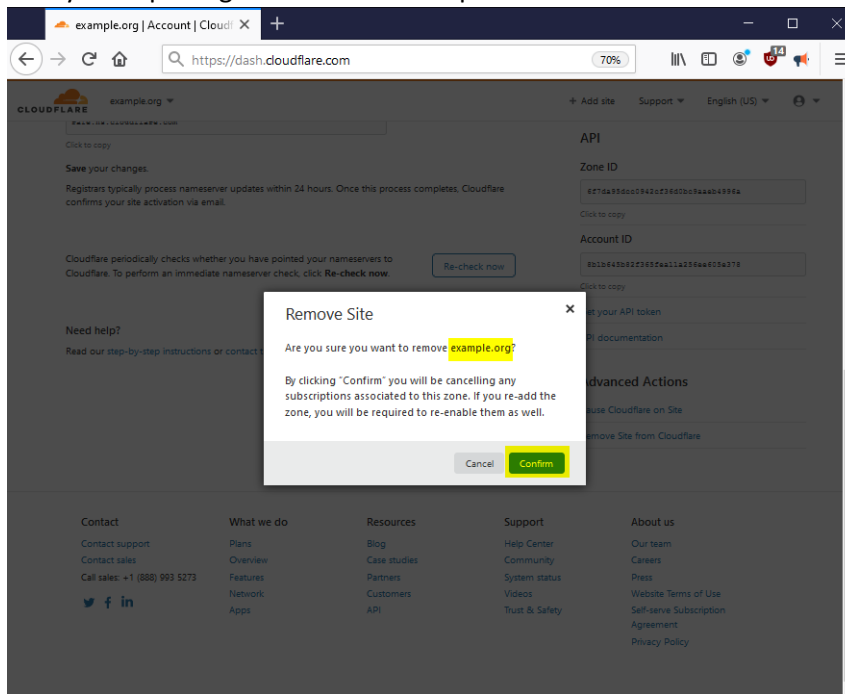
16. Please select “example.org” inside the main preview dashboard.



17. Scroll down to the bottom and select “Remove Site [example.org] from Cloudflare”



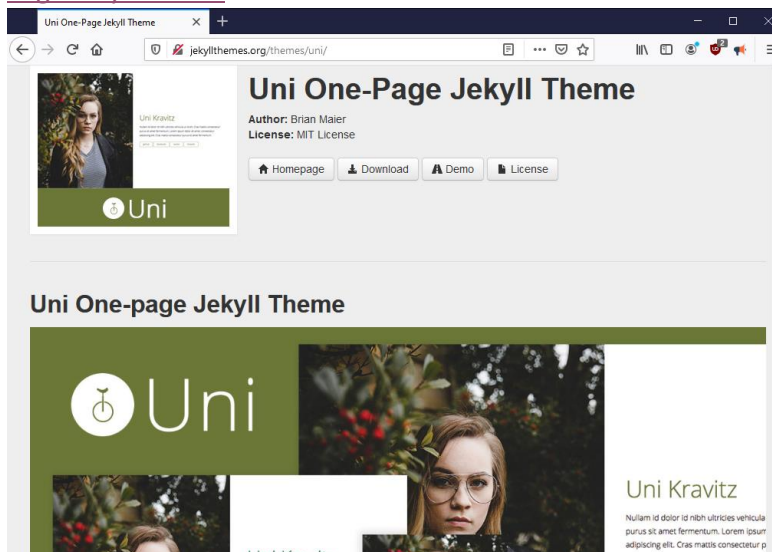
18. Verify example.org is the domain and provide confirmation if so.



You have successfully purchased your domain.

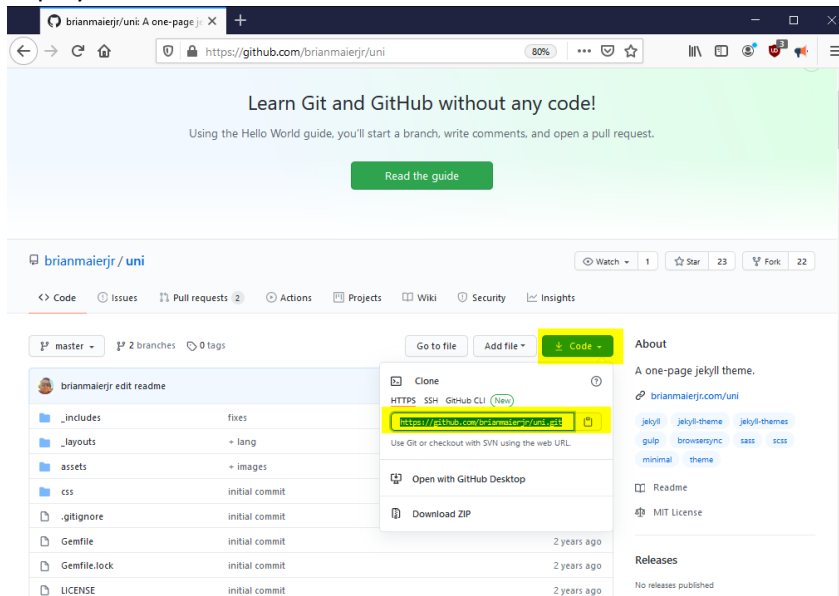
Locate desired Jekyll template:

1. Visit jekyllthemes.org
2. Scan through each page onto you find the desired template. In this instance, I found “[Uni One-Page Jekyll Theme](#)”.



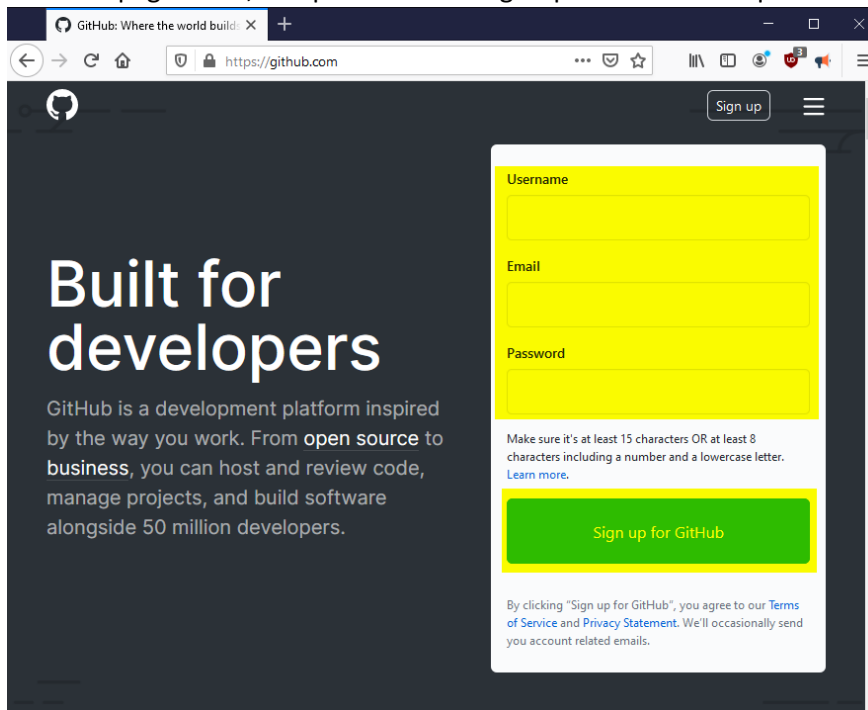
3. Verify licensing restrictions; visit <https://choosealicense.com/licenses/> to confirm the specified license fits for desired use case. In this instance, the MIT license works well.
4. If license is acceptable, select “homepage” from JekyllThemes to visit the source code.

5. Select “Code” and then copy provided hyperlink from “HTTPS”. Save this link for web hosting deployment.

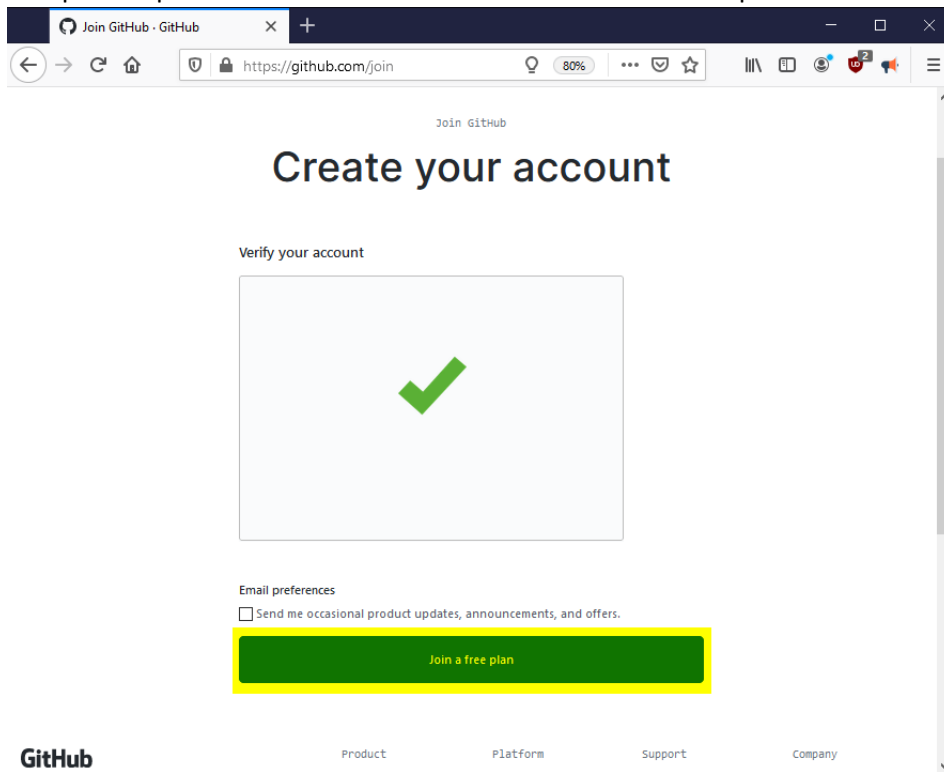


Managing website hosting:

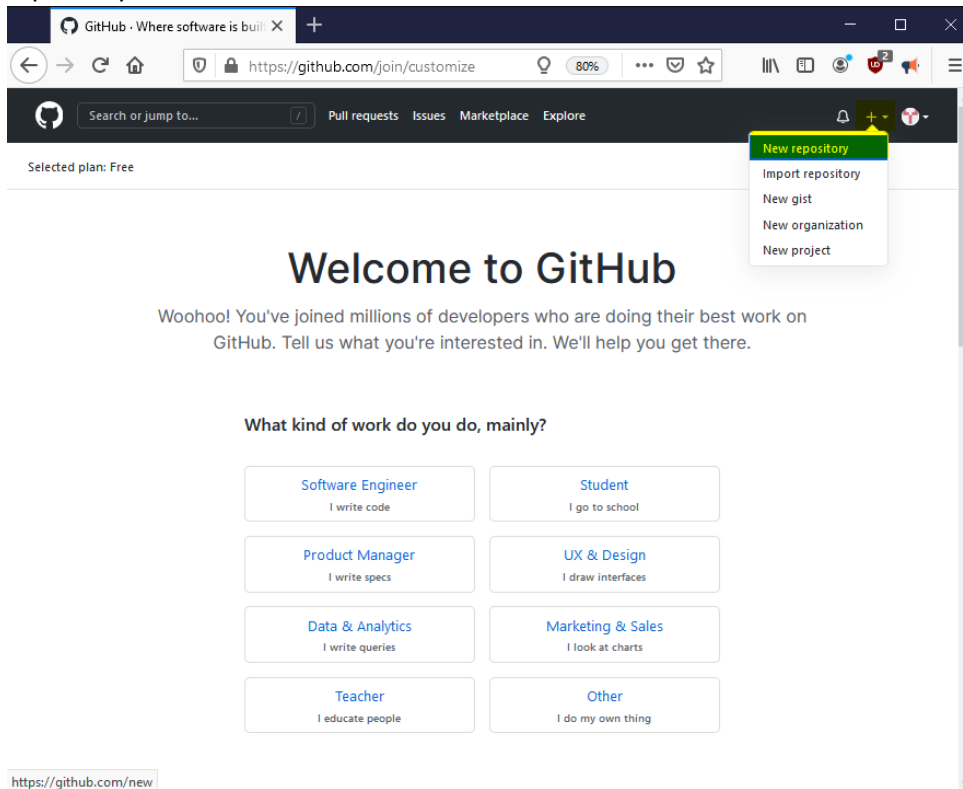
1. Visit github.com from any modern web browser.
2. On homepage index, complete account sign-up information request.



3. Complete caption for verification and then select “Join a free plan”. Please then verify email.



4. Select the plus icon in the top right corner near your avatar image and then select “New repository”



5. On this page, please enter your repository name as your Github username followed by “.github.io”

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Owner ^{*} Repository name ^{*}

node38 / **node38.github.io**

Great repository names are short and memorable. Need inspiration? How about [congenial-giggle](#)?

Description (optional)

☒ **Public**
Anyone on the internet can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.

☒ **Add a README file**
This is where you can write a long description for your project. [Learn more](#).

☐ **Add .gitignore**
Choose which files not to track from a list of templates. [Learn more](#).

☐ **Choose a license**
A license tells others what they can and can't do with your code. [Learn more](#).

Create repository

6. Scroll down to the bottom and select “Import code”.

node38/node38.github.io

[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

Quick setup — if you've done this kind of thing before

Set up in Desktop or HTTPS SSH <https://github.com/node38/node38.github.io.git>

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# node38.github.io" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/node38/node38.github.io.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/node38/node38.github.io.git
git branch -M main
git push -u origin main
```

...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code

7. From earlier a template's code hyperlink was saved. Enter this hyperlink now and then select "Begin Import"

node38/node38.github.io: Import

https://github.com/node38/node38.github.io/import

Search or jump to...

Pull requests Issues Marketplace Explore

Import your project to GitHub

Import all the files, including the revision history, from another version control system.

Your old repository's clone URL

https://github.com/brianmaierjr/uni.git

Learn more about the types of [supported VCS](#).

Your existing repository

node38/node38.github.io

Change repository

Cancel Begin Import

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8. Wait until initialization is complete

node38/node38.github.io: Import

https://github.com/node38/node38.github.io/import

Search or jump to...

Pull requests Issues Marketplace Explore

Preparing your new repository

There is no need to keep this window open, we'll email you when the import is done.

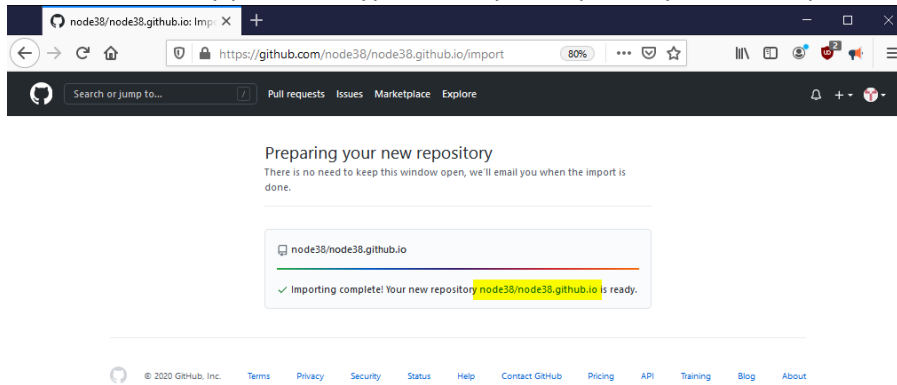
node38/node38.github.io

Cancel

Detecting your project's version control system...

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9. Click on the newly provided hyperlink of your repository when completed.

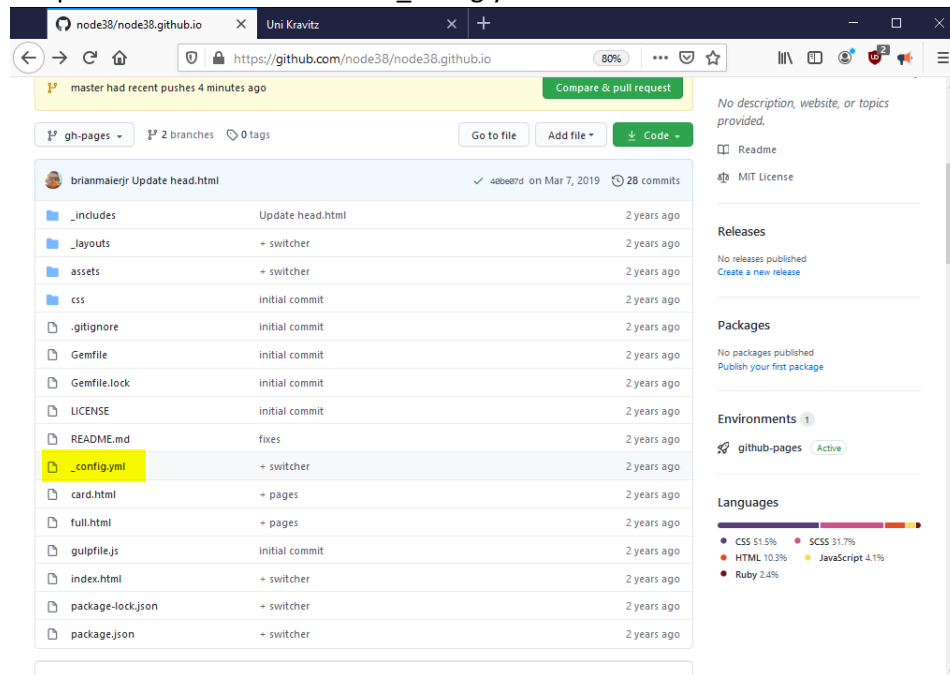


10. Verify no file named “CNAME” exists; if it does, see step 13 and jump back to step visit 12.
11. In a new tab, visit the following website: [github_username].github.io and make sure all appears well.

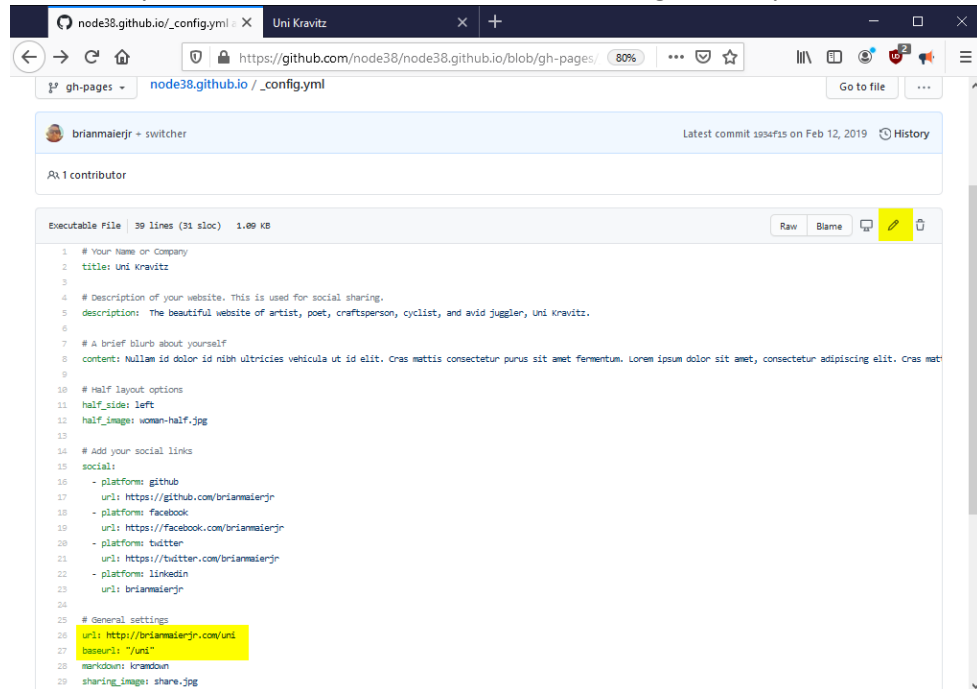


12. If the website appears white and without styling and images, it means there is likely an issue with the baseurl inside the _config.yml document. Please visit your previous Github.com link in

the previous tab and click onto “_config.yml”

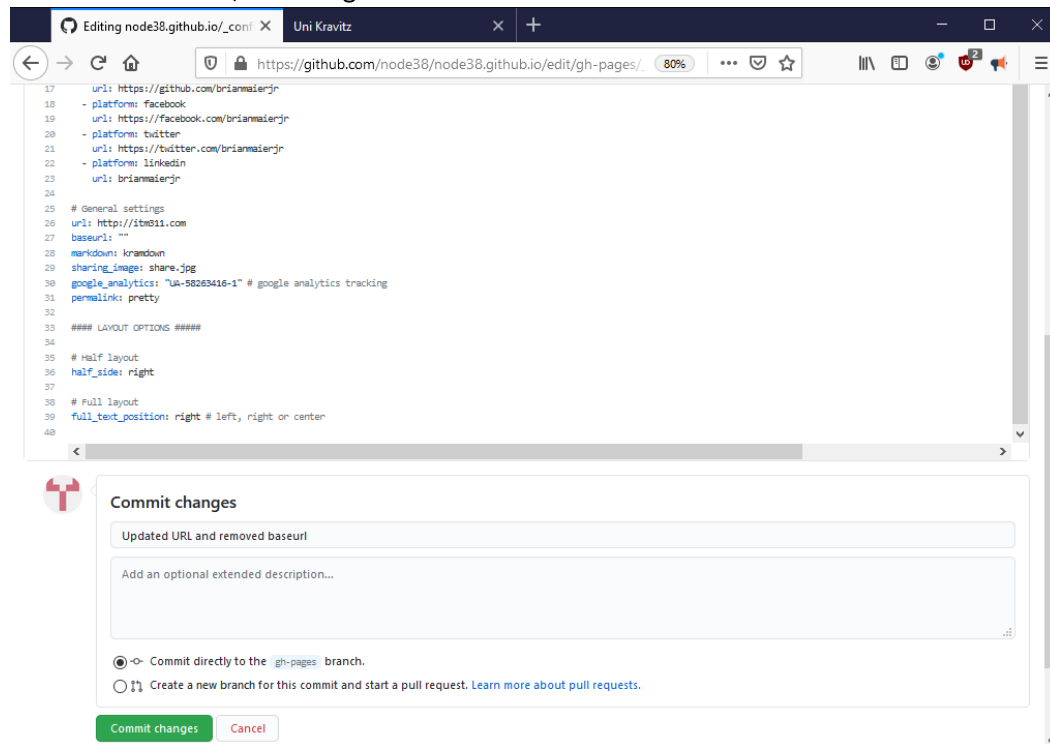


13. Check if there is a baseurl configured, please select the “Edit” pencil icon near the top right. Additionally, if there is a “URL” or “HOSTNAME”, change this to your new domain.



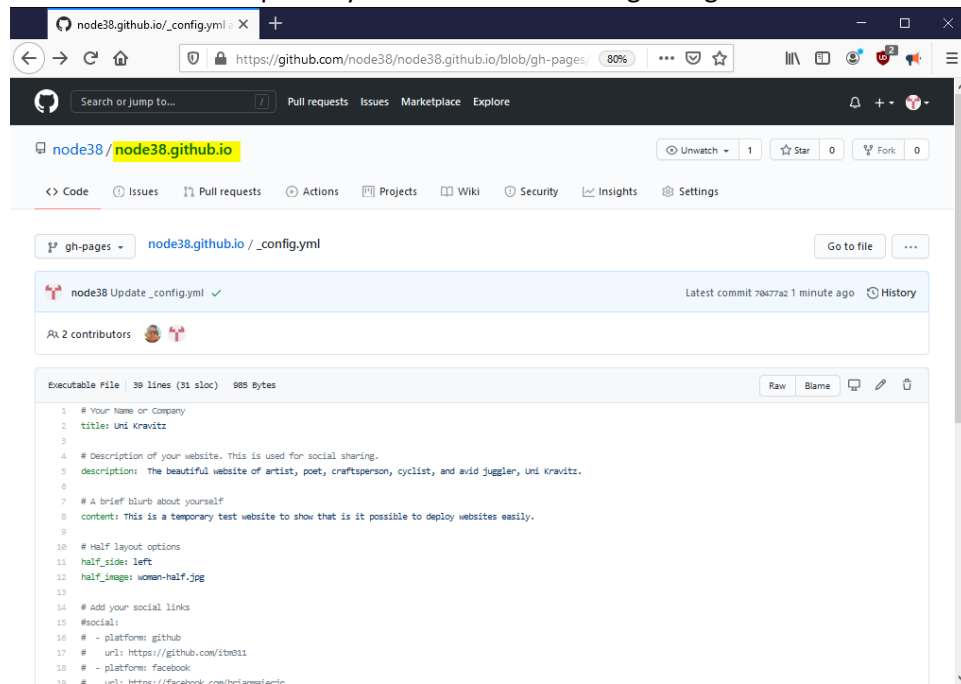
14. Execute the required changes and then provide a meaningful title to these modifications. While inside this documentation file, if there is anything you wish to change such as the Twitter URLs

or email addresses, this is a good time to do so.



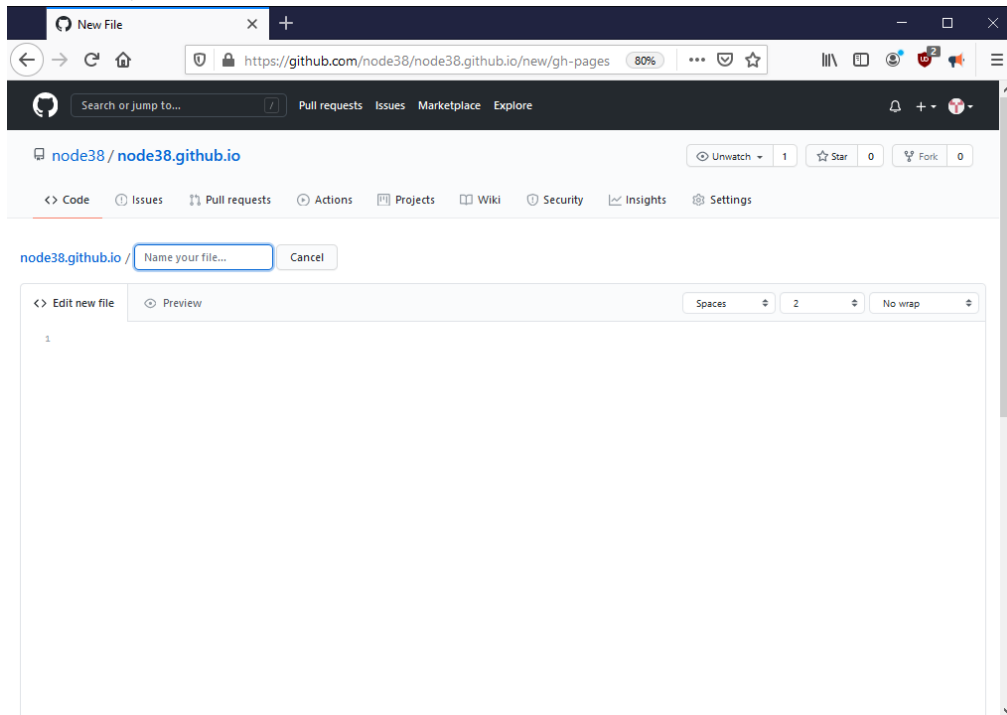
The screenshot shows a web browser window with the GitHub editor interface. The top bar indicates the file being edited is `node38.github.io/_config.yml`. The main area displays a YAML configuration file with various settings like social media links, general settings, and layout options. A 'Commit changes' dialog is open in the foreground. It contains a text input field with the message 'Updated URL and removed baseurl', an optional description field, and radio buttons to either 'Commit directly to the gh-pages branch' (selected) or 'Create a new branch for this commit and start a pull request'. At the bottom of the dialog are 'Commit changes' and 'Cancel' buttons.

15. Please click on the repository name after committing changes.

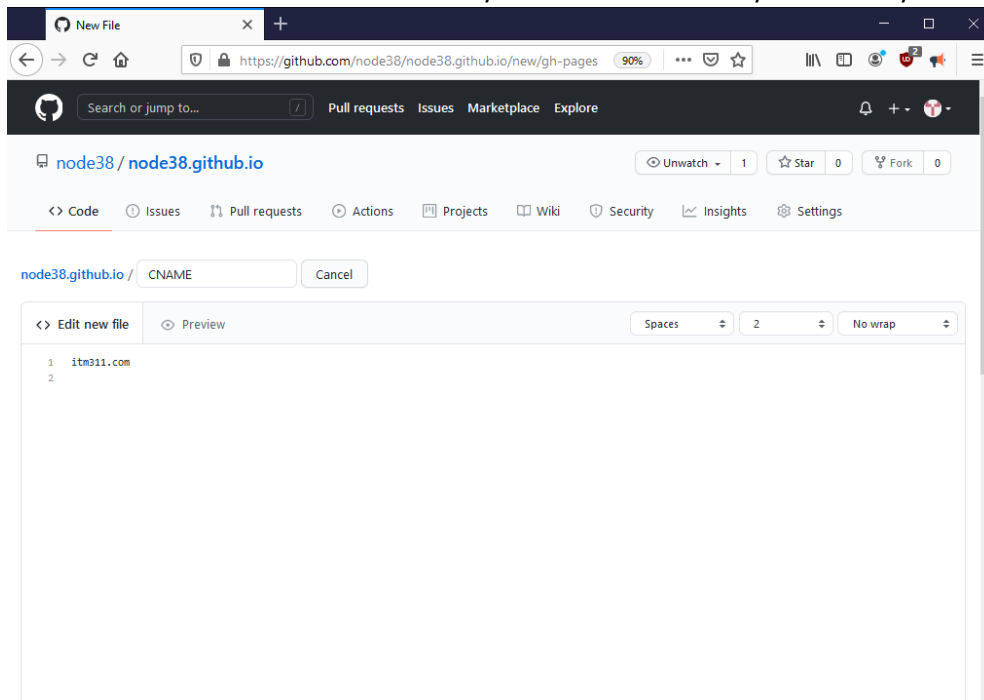


The screenshot shows the GitHub repository page for `node38/node38.github.io`. The repository name is highlighted in yellow. The page shows the file `node38.github.io / _config.yml` selected. Below the file name, it shows the commit history with the latest commit 'node38 Update _config.yml' and its contributors. The file content is displayed in a code viewer, showing the same YAML configuration as seen in the previous screenshot.

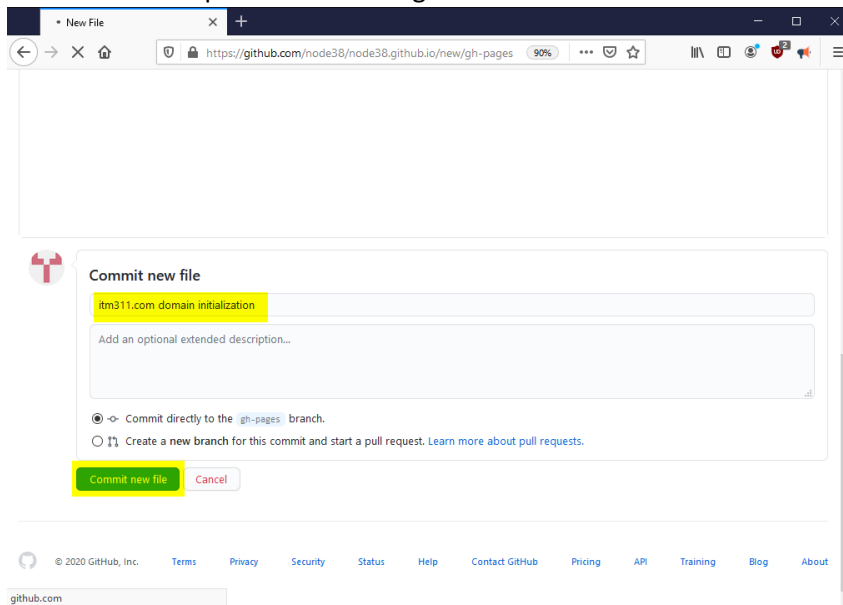
16. Inside the root folder of your website, if there is a CNAME document, click onto it and edit. Otherwise, select “Add file” then “Create new file”.



17. Name the file “CNAME” and then enter your domain name only followed by an additional line.



18. Scroll down and provide a meaningful comment and then commit changes.



Commit new file

itm311.com domain initialization

Add an optional extended description...

☒ Commit directly to the `gh-pages` branch.

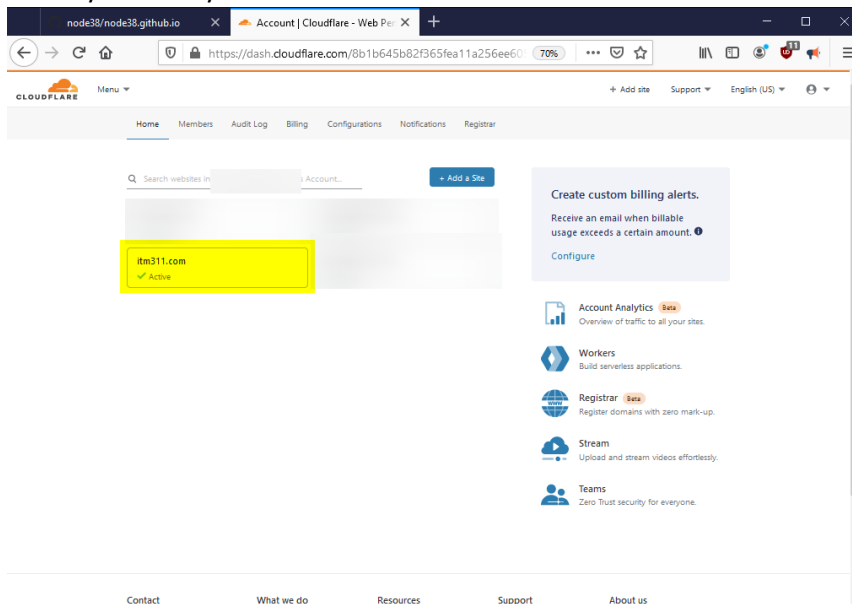
☐ Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit new file Cancel

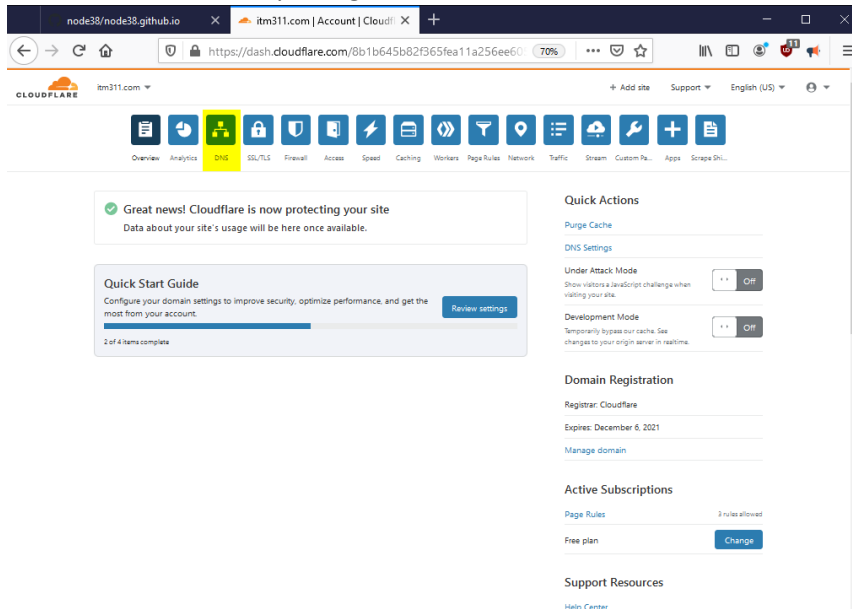
19. Please follow the documentation provided in “README.md” for information regarding how to modify these templates; it will vary from template to template.

Configuring domain to Github hosting with Jekyll theme.

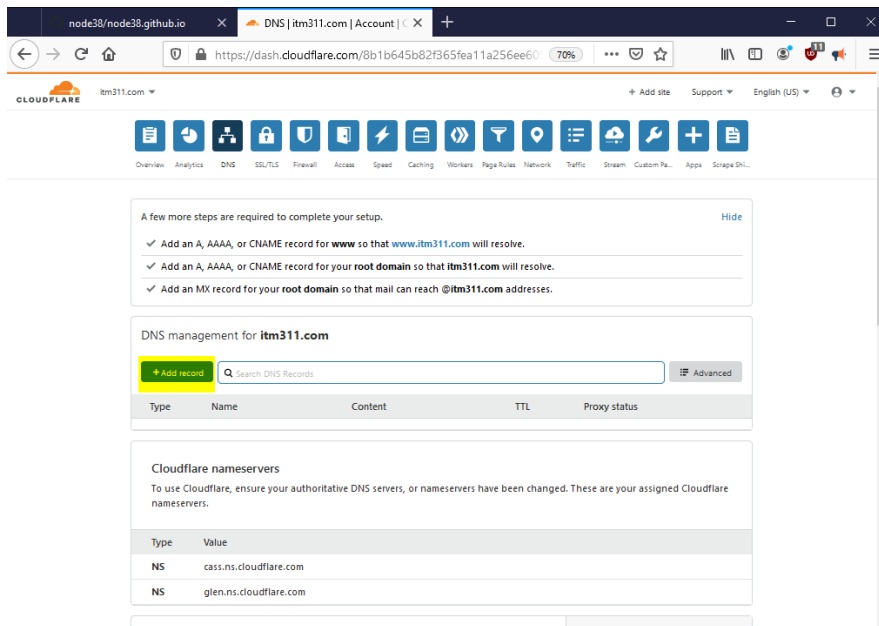
1. Visit cloudflare.com and sign into previously created account.
2. Select your newly created domain.



3. Select “DNS” on the top navigation bar



4. Select “Add record”



5. Add type: Type “CNAME” for name “@” and target “[github_username].github.io” then save.

A few more steps are required to complete your setup. [Hide](#)

- ✓ Add an A, AAAA, or CNAME record for **www** so that www.itm311.com will resolve.
- ✓ Add an A, AAAA, or CNAME record for your **root domain** so that itm311.com will resolve.
- ✓ Add an MX record for your **root domain** so that mail can reach @itm311.com addresses.

DNS management for **itm311.com**

[+ Add record](#) [Advanced](#)

itm311.com is an alias of node38.github.io and has its traffic proxied through Cloudflare.

Type	Name	Target	TTL	Proxy status
CNAME	@	node38.github.io	Auto	Proxied

[Cancel](#) [Save](#)

Cloudflare nameservers

To use Cloudflare, ensure your authoritative DNS servers, or nameservers have been changed. These are your assigned Cloudflare nameservers.

Type	Value
NS	cass.ns.cloudflare.com

6. You have successfully deployed a domain to Github’s hosting platform. This may take several hours to two days until the domain is successfully applied for all users. However, this normally takes about 5 minutes.